CLUE Framework

Interim Meeting

June 25, 2013

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Framework Agenda

- Switched Captures
- Open issue and task summary

Switched Capture Example

- draft-duckworth-clue-switching-example-00
- Topo-Mixer – media switching variety
  - see draft-ietf-clue-rtp-mapping
    and draft-ietf-avtcore-rtp-topologies-update
- Mixer (middle box) provides conceptual sources (Media Captures), selecting one source at a time from the original sources

Example Video Layout

- This endpoint is receiving 9 video captures.

- VC0, VC1, VC2 has the current talker

- VC3 – VC8 has other recent talkers

- When the switch occurs, the renderer momentarily displays the other endpoints' names

Blue person starts talking, mixer switches video (site-switching)
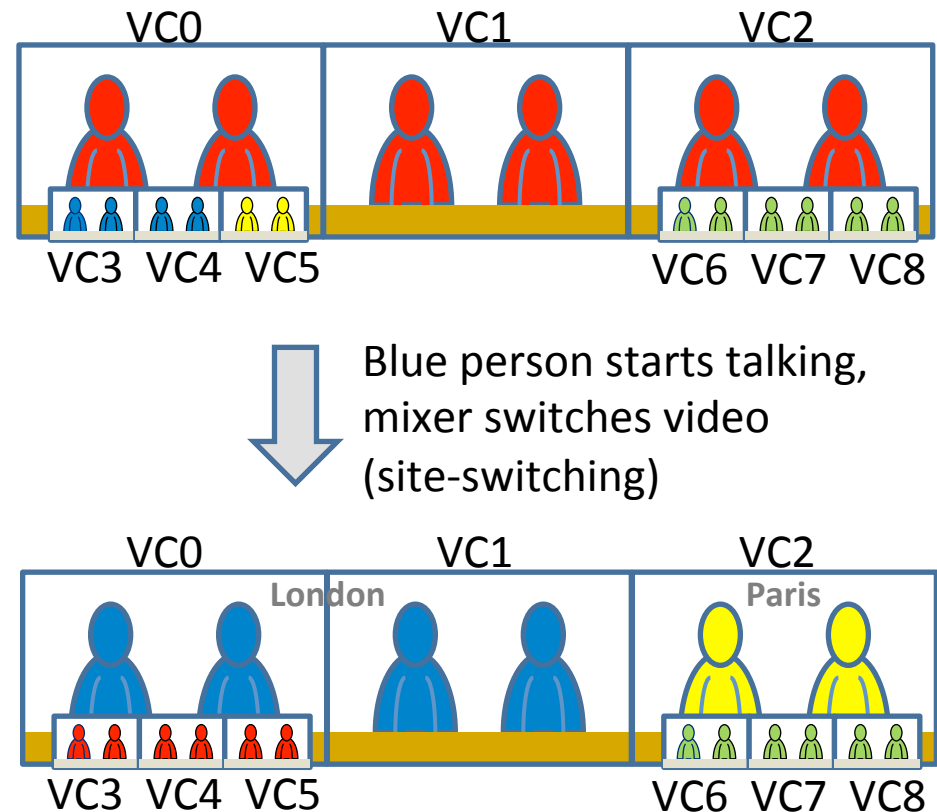
Switching Mixer Diagram

- Mixer sends 9 Video Captures to A

- Mixer selects which sources to send, and when to switch them, based on its own policy
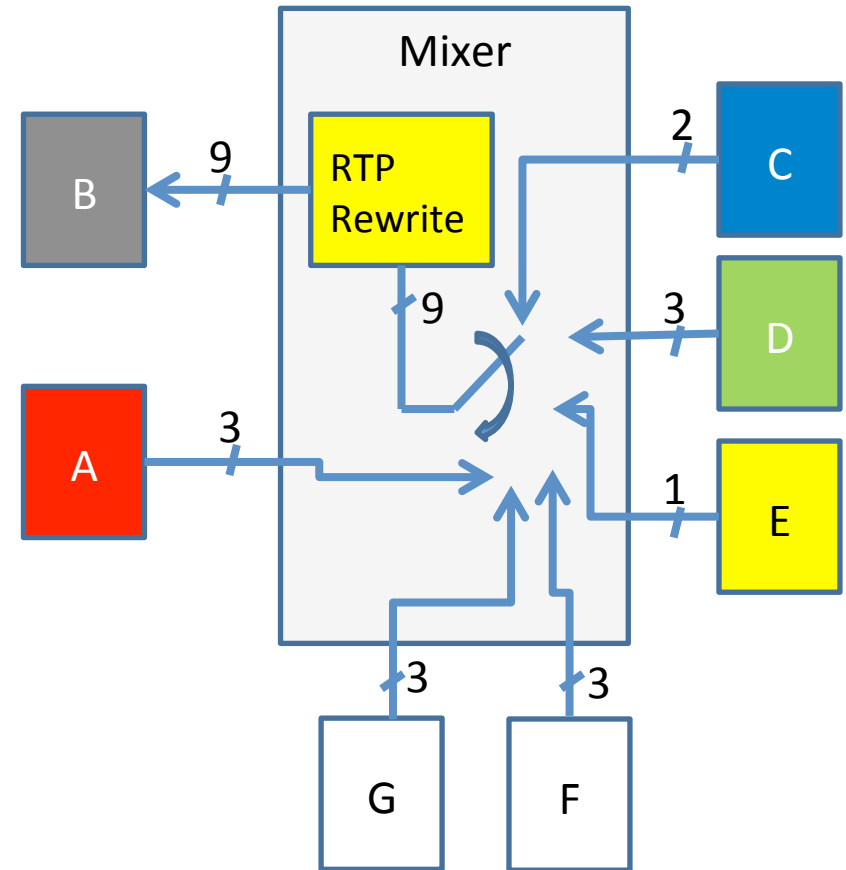
RTP Mapping Requirements

- This example illustrates a few requirements from the RTP Mapping document
- Media-4: It must be possible for an original source to move among switched captures
- Media-6: Whenever a given source is assigned to a switched capture, it must be immediately possible for a receiver to determine the switched capture it corresponds to
- Media-7: It must be possible for a receiver to identify the actual source that is currently being mapped to a switched capture, and correlate it with out-of-band (non-Clue) information such as rosters.

Advertisement – 1 Scene

- Put all the captures into one big scene
- Capture Scene:
  - CSE1: VC0,VC1,VC2,VC3,VC4,VC5,VC6,VC7,VC8
  - CSE2: VC0,VC1,VC2,VC3,VC4,VC5,VC6,VC7
  - CSE3: VC0,VC1,VC2,VC3,VC4,VC5,VC6
  - etc
  - CSE9: VC0
- Consumer picks number of captures it wants to receive
- Attributes for priority/role indicate VC0-VC2 are most important

Advertisement – Multiple Scenes

- Each scene represents another endpoint, or small group of endpoints
- Capture Scene 1 (current talker):
  - CSE1: VC0,VC1,VC2
- Capture Scene 2:
  - CSE2: VC3,VC4,VC5
- Capture Scene 3:
  - CSE2: VC6,VC7,VC8
- Scenes and/or captures use attributes to convey priority and/or role, so Consumer chooses and renders Scene 1 as highest priority

Switching Example Issues

- If using 1 big scene, what does spatial relationship mean?
- If using 1 big scene (probably multiple scenes too), the Consumer needs the original source's spatial relationships, among captures that come from the same endpoint. How does it get it?
  - Clue messages?
  - Extensions to SIP Event Package and XCON?
- Would each CSE use the same "conceptual" VCs? Or different VCs in each CSE?
- How does the Consumer associate actual received media with roster information?
  - SSRC/CSRC and XCON?
- Need more clarity on use of "role" attribute
- Expand to include "site switching" vs. "segment switching"

Open Tickets

- #20 – rejecting Configure – should mention this in framework. What happens if Producer doesn't do what the Configure message says?

- #25 – is Advertisement "all" or "delta" – action for Christian and Roni

Other Open Issues

- Role Attributes – new draft coming from Christian
- Update Example section – action for editors
- clean up Encoding parameters for pixels/sec (computational complexity), should be independent of codec (e.g. H.264, H.265, …) – looking for input from the group
- Ensure Framework and Data Model are using consistent terminology – action for editors
- Security Considerations – Mary